



**METROPOLITAN GOVERNMENT OF
NASHVILLE AND DAVIDSON COUNTY**

OFFICE OF INTERNAL AUDIT

Professional Audit and Advisory Service

FINAL REPORT



**Audit of the Metropolitan Investment Pool
July 1, 2010 through June 30, 2012**

Date Issued: March 28, 2013

Office Location and Phone Number
1417 Murfreesboro Pike
Nashville, Tennessee 37217
615-862-6110

The Metropolitan Nashville Office of Internal Audit is an independent audit agency reporting directly to the Metropolitan Nashville Audit Committee

EXECUTIVE SUMMARY

March 28, 2013

| Results in Brief | Background and Recommendations | | | | | | | | | | | | | | | | | | | | | |
|--|--|------------------|---------|---------|------------------------------------|---------------|---------------|-----------------------|-------|-------|----------------------------|-----------|-----------|--|-----------|-----------|-------------------------|-----------|-----------|-----------------------------|------------------|------------------|
| <p>An audit of the Department of Finance's Metro Investment Pool was conducted.</p> <p style="text-align: center;">Key Audit Objective</p> <p><i>Were controls in place to ensure correct allocation of interest income and interest charges where applicable?</i></p> <p>Generally yes. However, some strengthening of controls is needed to ensure correct allocation of interest income, interest charges and expenses.</p> <p>Key sub-objectives used to determine the primary audit objective included:</p> <ol style="list-style-type: none"> 1. Were interest incomes received from the Tennessee Local Government Investment Pool accurate? Yes. Interest income agreed with stated applied interest rates. 2. Were fund account balances correctly and properly booked? Generally no. Four out of the twelve months reviewed showed variances in stated and actual applied amounts. 3. Were the processing controls within SymPro accurate? Yes. Time weighted investment values were recalculated to ensure calculations generated by SymPro were accurate as intended. 4. Was data within SymPro and EnterpriseOne consistent and reconciled? Yes. General ledger balances from EnterpriseOne matched balances from SymPro with no exceptions observed. 5. Were expenses allocated to positive fund balances related to investment activity? Generally yes. However, numerous expenses were more operational than investment related. | <p style="text-align: center;">Metropolitan Investment Pool July 1, 2010 through June 30, 2012</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 20%; text-align: center;">FY 2012</th> <th style="width: 20%; text-align: center;">FY 2011</th> </tr> </thead> <tbody> <tr> <td>Average Daily Principle Investment</td> <td style="text-align: right;">\$551 million</td> <td style="text-align: right;">\$504 million</td> </tr> <tr> <td>Average Monthly Yield</td> <td style="text-align: right;">0.12%</td> <td style="text-align: right;">0.21%</td> </tr> <tr> <td>Total LGIP Interest Income</td> <td style="text-align: right;">\$687,274</td> <td style="text-align: right;">\$993,507</td> </tr> <tr> <td>Imputed Interest from Negative MIP Fund Balances</td> <td style="text-align: right;">\$287,031</td> <td style="text-align: right;">\$167,578</td> </tr> <tr> <td>Less: Total MIP Expense</td> <td style="text-align: right;">\$749,421</td> <td style="text-align: right;">\$749,894</td> </tr> <tr> <td>Total MIP Net Return</td> <td style="text-align: right;">\$224,884</td> <td style="text-align: right;">\$411,371</td> </tr> </tbody> </table> <p>Key recommendations of this report include:</p> <ul style="list-style-type: none"> • Determine if the Metro Investment Pool is aptly named or would it be more appropriately referred to as the Metro Nashville's Pooled Cash Account or similar moniker. • Clearly communicate the purpose of the Metro Investment Pool as a mechanism to maximize investment yields for Metro's temporarily idle cash so as to fund expenses related to forecasting and mobilization of Metro's daily cash requirements. • Determine if after declassifying the Metro Investment Pool as an investment vehicle, Metro would be better served simply retaining interest income for Treasury cash management operations and not charging interest to negative balance funds (mostly consisting of grants). • Work with SymPro Software to determine if user identification information can be utilized and recorded to create an auditable trail for managements review. | | FY 2012 | FY 2011 | Average Daily Principle Investment | \$551 million | \$504 million | Average Monthly Yield | 0.12% | 0.21% | Total LGIP Interest Income | \$687,274 | \$993,507 | Imputed Interest from Negative MIP Fund Balances | \$287,031 | \$167,578 | Less: Total MIP Expense | \$749,421 | \$749,894 | Total MIP Net Return | \$224,884 | \$411,371 |
| | FY 2012 | FY 2011 | | | | | | | | | | | | | | | | | | | | |
| Average Daily Principle Investment | \$551 million | \$504 million | | | | | | | | | | | | | | | | | | | | |
| Average Monthly Yield | 0.12% | 0.21% | | | | | | | | | | | | | | | | | | | | |
| Total LGIP Interest Income | \$687,274 | \$993,507 | | | | | | | | | | | | | | | | | | | | |
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INTRODUCTION

Audit Initiation

The performance audit of the Metropolitan Investment Pool was conducted as part of the approved 2012 Audit Work Plan. The audit was initiated in part to gain an understanding on the processes employed by the Metro Department of Finance, particularly the Financial Operations and Treasury functions, as they pertain to Metro Nashville's cash operations. An additional reason was due to the number of years elapsed since the last audit was conducted (none in last seven years).

Metropolitan Investment Pool

The Metropolitan Investment Pool, also commonly referred to as MIP, is primarily a cash concentration account whose main function is to serve as the general checking account for Metro's daily operational needs. Daily cash, from Metro's bank deposits, are pooled and collectively invested elsewhere in order to earn interest. With just a few exceptions, the Metro Investment Pool is used by almost all the funds of the Metropolitan Government. The pooled cash is invested with the State of Tennessee – Treasurer's Local Government Investment Pool or LGIP.

Local Government Investment Pool

The Tennessee Local Government Investment Pool is an investment mechanism authorized by the State of Tennessee's General Assembly which facilitates maximum investment opportunities of public funds for Tennessee local governments and other political subdivisions. By pooling these funds, cash managers who have previously been limited either by the amount of funds available for investment (which can be relatively small) or because of the complexities of today's investment environment can take advantage of the volume and expertise of the State Treasurer's cash management program. The funds are invested in Certificates of Deposits, Commercial Paper, and U.S. Treasury Bonds in accordance with State of Tennessee requirements. To cover its costs, the Tennessee Local Government Investment Pool charges an annual fee of .05 percent (five basis points) of invested assets. This fee is subtracted from monthly returns before they are posted, much the same way as expenses are assessed in mutual funds. The fee is, in a sense, invisible to the account holder.

Metro Treasurer's Process

To provide for the daily cash operating needs of the Metro Government, the Metropolitan Treasurer assesses its daily cash requirements and transfers funds from the Local Government Investment Pool to the Metro Government operating (disbursement) bank accounts or transfers excess funds into the Local Government Investment Pool. The goal is to maximize the investment balance and limit excess funds in the disbursement account.

On a monthly basis, investment income and investment related expenses, derived from the Local Government Investment Pool, the Metro Treasurer, and Financial Operations, are distributed to the various funds within the Metro Investment Pool. Recently, due to historically low interest rates, yields on the investments have also decreased. In 2012, overall expenses actually exceeded the LGIP

investment income, producing a negative return on investments before allocation of Metro internal interest fees for negative fund balances.

The allocation process devised by the Financial Operations group ensures that funds with monthly *positive* time-weighted balances receive at least some interest income allocations; notwithstanding the low or net negative returns. This is currently possible by allocating interest charges made on those funds with *negative* time-weighted balances to the positive time-weighted balance accounts. The interest rates used for charging the negative balance accounts is the same rate that was returned from the Tennessee Local Government Investment Pool for that month.

Expenses for the Metro Investment Pool are first netted against income received from the Tennessee Local Government Investment Pool on a monthly basis. The remaining amount of interest income, if any, is then added to the interest charges made to the negative accounts. The consolidated amount is then spread among Metro Investment Pool positive weighted accounts on a time-weighted balance basis.

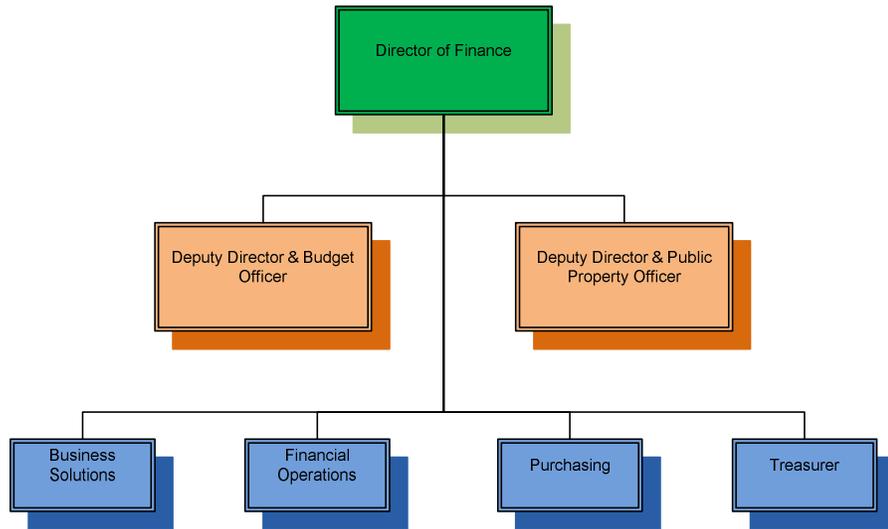
As stated earlier, by using the current process, accounts with a positive time-weighted balance for the month receive at least some return, even if overall expenses exceed LGIP income. This is possible by charging interest to the negative accounts. However, it should be noted that this is possible only when interest charges to negative accounts exceed the amount of negative return when Metro Treasury expenses are netted against Tennessee Local Government Investment Pool returns.

Organizational Structure

The Treasury and Financial Operations group are subsets within the Metropolitan Department of Finance. Their primary functions are delineated below.

Exhibit A - Metropolitan Department of Finance

Organizational Chart



Source: Metropolitan Government Comprehensive Annual Financial Report

Financial Operations

The Financial Operations group provides the Metropolitan Government with fiscal leadership and sound stewardship of public resources by: (1) establishing fiscal policy, (2) providing accurate and timely information, and (3) facilitating the most effective and efficient delivery of services. In addition to managing the overall accounting function within Metro, the group also provides accounting services for the Metro Investment Pool, provides payroll services, and processes accounts payables.

Metropolitan Treasurer

The Office of the Treasurer provides leadership as the stewards of Metro Government's cash, debt, and investments by implementing efficient cash management tools, prudent investing principles, effective debt management programs, and timely informative communications and reporting. This function also manages Metro's pension investments.

Information Systems

SymPro and EnterpriseOne are the primary and most critical information systems used by the Department of Finance, relevant to the Metro Investment Pool.

SymPro

Developed by Emphasys, the SymPro software package automates the accounting, performance tracking, compliance and financial reporting on investment, debt, and cash portfolios. SymPro is a fully integrated, modular application that includes functionality for:

- Fixed Income
- Equities Manager
- Cash Flow Forecaster
- Market Pricing

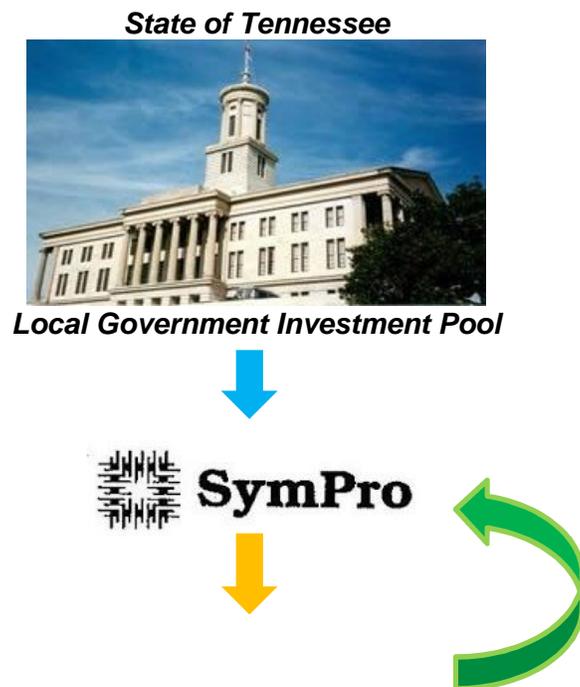
- General Ledger Interface
- Earnings Allocation

The system has other functionalities for analysis and reporting utilized by the Financial Operations group for use in the Metro Investment Pool interest allocation process.

The SymPro product, as utilized by the Department of Finance, is accessed through a web-based portal that requires secure login procedures; the database that houses the information resides within the department. There are at least five authorized users within the Finance Department, three from Financial Operations and two from Treasury. Overall software administration is remotely performed, and user accounts are managed off-site.

SymPro does not automatically interface with the State of Tennessee's financial information from the Local Government Investment Pool or Metro's EnterpriseOne system. Daily transaction files containing the daily balances from EnterpriseOne (in the form of text files) are uploaded into SymPro. Then, investment return information from the Local Government Investment Pool is entered into SymPro on a monthly basis along with the dollar amount of expenses to be charged from Metro Treasury (bank fees, labor, SymPro expenses, etc.). Finally, the income/expense allocation process is initiated in SymPro.

Exhibit B – Graphical Representation of System Sequences of the Metro Investment Pool Process



Source: Metro Office of Internal Audit Process Documentation

Financial Information

The following tables provide a historical view of the Metro Investment Pool activity. The first table is a five-year schedule of interest income derived from the Local Government Investment Pool. Note the decreased returns moving from 2008 to 2012 (left to right).

Exhibit C – Five Year Schedule of Interest Income

| | 2008 | 2009 | 2010 | 2011 | 2012 |
|---------------|---------------------|--------------------|--------------------|------------------|------------------|
| July | \$ 1,967,705 | \$ 905,006 | \$ 201,010 | \$105,032 | \$ 65,141 |
| August | 1,915,734 | 794,187 | 163,515 | 89,732 | 55,362 |
| September | 1,592,866 | 772,930 | 123,299 | 71,887 | 43,645 |
| October | 1,381,255 | 725,095 | 89,663 | 54,009 | 38,002 |
| November | 1,102,627 | 569,880 | 67,919 | 45,396 | 32,323 |
| December | 1,425,579 | 544,265 | 86,116 | 79,696 | 48,229 |
| January | 1,600,293 | 500,269 | 68,391 | 92,067 | 53,708 |
| February | 1,291,748 | 412,212 | 59,736 | 82,116 | 55,150 |
| March | 1,791,799 | 603,087 | 102,836 | 120,188 | 77,220 |
| April | 1,393,176 | 442,821 | 103,136 | 103,946 | 75,116 |
| May | 1,205,091 | 379,384 | 104,180 | 80,033 | 72,126 |
| June | 1,004,703 | 241,534 | 102,862 | 69,406 | 71,252 |
| Totals | \$17,672,576 | \$6,890,670 | \$1,272,663 | \$993,507 | \$687,274 |

Source: Metro Finance Department - Financial Operations Group

The following table (Exhibit D) shows the five-year schedule of investment expenses. Interesting to note is the attempt to control expenses relative to diminishing returns. Note the large drop in expenses from 2009 to 2010, corresponding to the drop in interest income, market interest rates, and the national recession. Expenses dropped approximately 33 percent and have since leveled off (while interest rates and interest income has continued to decline).

Exhibit D – Five Fiscal Year Schedule of Investment Expense

| | 2008 | 2009 | 2010 | 2011 | 2012 |
|---------------|-----------------------|--------------------|------------------|------------------|------------------|
| July | \$ (26,795) | (20,872) | (21,194) | (62,589) | (52,614) |
| August | (112,444) | (76,083) | (53,350) | (67,237) | (61,993) |
| September | (36,081) | (35,592) | (60,518) | (31,885) | (52,518) |
| October | (244,564) | (90,923) | (57,785) | (52,412) | (57,115) |
| November | (31,775) | (62,327) | (38,598) | (43,844) | (54,370) |
| December | (20,386) | (224,464) | (63,000) | (74,827) | (67,041) |
| January | (111,296) | (224,464) | (57,004) | (90,624) | (66,731) |
| February | (36,366) | (62,702) | (55,863) | (71,371) | (59,363) |
| March | (66,872) | (70,223) | (101,836) | (98,780) | (85,572) |
| April | (376,836) | (103,521) | (102,136) | (80,000) | (74,728) |
| May | (95,855) | (121,957) | (84,572) | (78,335) | (71,736) |
| June | (94,411) | (29,255) | (53,552) | 0.00 | (47,652) |
| Totals | \$ (1,251,672) | (1,120,372) | (747,398) | (749,894) | (749,421) |

Source: Metro Finance Department - Financial Operations Group

Exhibit E – Total External Interest and Total Expenses

| | 2008 | 2009 | 2010 | 2011 | 2012 |
|----------------------|--------------|-------------|-------------|-----------|-----------|
| LGIP Interest Income | \$17,672,576 | \$6,890,670 | \$1,272,663 | \$993,507 | \$687,274 |
| Expenses | -1,251,672 | -1,120,372 | -747,398 | -749,894 | -749,421 |

Source: Metro Office of Internal Audit calculations

Netting LGIP interest income with investment expenses of fiscal year 2012 produced a negative return before allocation of Metro Nashville’s internal interest fees, as shown below in Exhibit F (external net return). However, after adding interest imputed from the investment pool funds with average negative balances¹ for the month, returns are positive as shown below.

Exhibit F – Schedule of Total Returns, Net of Expenses

| | 2011 | 2012 |
|---|-----------|------------|
| LGIP Interest Income | \$993,507 | \$687,274 |
| Expenses | -749,894 | -749,421 |
| External Net Return | \$243,613 | \$ -62,147 |
| Imputed Interest from Negative Balance MIP Accounts | \$167,758 | \$287,031 |
| Total Net Return | \$411,371 | \$224,884 |

Source: Metro Office of Internal Audit calculations

The following table shows the average monthly activity for Metro’s account with the Tennessee Local Government Investment Pool. Although average daily principle balances are higher in 2012, interest earned is considerably lower. This phenomenon is again primarily attributable to the lower interest rates.

Exhibit G – Two-Year Average Monthly LGIP Activity

| | FY 2011 | FY 2012 |
|--|---------------|---------------|
| Average Daily Principle Balance | \$496,977,544 | \$558,368,755 |
| Average Interests Credited for Each Month | 82,792 | 57,273 |
| Average Monthly Earnings Rate | 0.21% | 0.12% |

Source: Tennessee LGIP Monthly Statements

¹ The imputed interest amount is determined by multiplying the current LGIP monthly return rate with the average time weighted negative balance. This amount is effectively charged to the negative balance funds and spread as interest to the positive balance funds.

Exhibit H – Example of Largest Positive and Negative Balance Funds as of February 2012

| Name | Fund | Balance |
|----------------------------------|-------------|----------------|
| Water & Sewer Replacement | 47335 | \$86,542,913 |
| General Fund 4% Reserve | 30003 | 50,844,768 |
| Unapplied Taxes | 11113 | 46,002,705 |
| Water & Sewer Revenue Bonds | 47342 | 44,827,260 |
| Flood Insurance Recovery | 30056 | 40,960,667 |
| Employee Med Benefit Trust | 52177 | 35,100,138 |
| Commercial Paper Fund | 10107 | 26,544,118 |
| FEMA Flood Revenue | 30058 | 24,162,457 |
| Water & Sewer Commercial Paper | 10109 | 21,593,996 |
| GS Debt External Capital Project | 40400 | (2,314,502) |
| Police Impound | 61200 | (2,926,973) |
| Sherriff CCA Contract | 30145 | (3,052,217) |
| MNPS IDEA | 35137 | (3,159,345) |
| USD Debt Service | 28315 | (3,588,470) |
| MNPS Title I | 35154 | (3,997,044) |
| Flood Home Buyouts | 37039 | (6,348,815) |
| General Fund | 10101 | (12,818,491) |
| General Service Debt Service | 20115 | (24,460,367) |
| Flood 2010 | 30039 | (27,375,118) |

Other funds of note with positive balances: CIGNA Choice Fund \$10,312,525; Solid Waste Fund \$8,476,338; Water and Sewer Operations \$7,663,663; Metropolitan Nashville Public Schools Lunch Fund \$7,380,911.

OBJECTIVES AND CONCLUSIONS

Primary Audit Objective

Were controls in place to ensure correct allocation of interest income and interest charges where applicable?

Generally yes. However, some strengthening of controls is needed to ensure correct allocation of interest income, interest charges, and expenses.

Key Supporting Objective

1. *Were interest incomes received from the Tennessee Local Government Investment Pool accurate?*

Yes. Interest income agreed with stated interest rates applied to time weighted values each month for the 24 sample months calculated with no material variances.

2. *Were fund account balances correctly and properly booked?*

Generally no. Four out of the 12 months reviewed showed variances between posted amounts and recalculations of the amount of interest to be allocated to positive balance accounts and/or charged to negative balance accounts using the interest rate and tabulated expenses used by Metro Finance.

The amounts of interest to spread across positive and negative funds were incorrect for four out of the 12 months reviewed and eight out of the 24 individual calculations. This particular calculation determines the amount of return allocated to each fund and the amount of interest charged for negative funds (see Observation C).

3. *Were the processing controls within SymPro accurate?*

Yes. We recalculated time weighted values for all accounts for 12 sample months to ensure calculations generated by SymPro were accurate as intended. We found no material variances between any of the recalculations and the SymPro amounts.

4. *Was data within SymPro and EnterpriseOne consistent and reconciled?*

Yes. Again, we compared Metro EnterpriseOne general ledger balances with SymPro calculations for all accounts for 12 sample months with no exceptions observed.

5. *Were expenses allocated to fund balances related to investment activity?*

Generally yes. However, in addition to the five basis points charged as a management fee by the Local Government Investment Pool, Metro Nashville fund balances were allocated additional expense incurred by Metro Nashville's Treasurer and Financial Operations

Divisions. In fiscal year 2012, these expenses averaged \$62,451 a month or \$749,421 for the year. A portion of these expenses were more closely related to budgeting, forecasting and cash mobilization for daily operations.

This has resulted in investment pool account holders included in the Metro Investment Pool with a perception they should yield higher returns or returns similar to the investment vehicle, which is currently the Tennessee Local Government Investment Pool, where rates are posted. However, this was not their actual yield experience due to the adjustment of investment and other non-investment related Department of Finance expenses to the net earnings received from the Tennessee Local Government Investment Pool (see Observation A).

6. *Were access controls to SymPro sufficient for safeguarding assets?*

Generally no. As currently configured, the SymPro software uses a generic login screen that does not allow user names. An inquiry of the security controls for SymPro revealed that a password was created for access to the system and then distributed to those who needed it. This method of distributing one password to all users does not allow for user activity to be determined later.

In addition there were critical files located on the Finance Department shared file folder (P: drive) for uploading into SymPro in which access had not been limited to personnel with business needs (see Observation D).

OBSERVATIONS AND RECOMMENDATIONS

A – Metro Investment Pool Perception

Investment pool account holders believe inclusion in the Metro Investment Pool will yield higher returns or returns similar to the investment vehicle, currently the Tennessee Local Government Investment Pool. This was not the experience account holders observed. As shown below the Metropolitan Nashville Public Schools Lunch Fund (35158) received only 28 percent of the posted rate in the Tennessee Local Government Investment Pool for February 2011 and March 2011.

The lower than expected yield was due to expenses related to daily cash management tasks (cash forecasting and mobilization) being offset/adjusted from investment earnings. Items such as \$410 thousand annual operational bank account fees and monthly labor charges averaging \$22 thousand per month were offset/adjusted against investment earnings. Other miscellaneous fees, such as rental equipment, printing and binding, subscriptions, travel trips and personnel membership dues were also deducted. While these were valid expenses for Treasury, some of them were unrelated to an investment vehicle, potentially 50 percent or more.

Exhibit I – Example of Metro Investment Program and Expenses

| MNPS School Lunch Fund (35158) | March 2011 | February 2011 |
|--|-------------------|----------------------|
| Average Balance | \$3,862,064 | \$4,188,729 |
| Tennessee LGIP Monthly Rate Annualized | .18% | .20% |
| Monthly Rate | .015% | .017% |
| Computed Interest Using Monthly Rate | \$579.31 | \$712.08 |
| Actual Interest Received | \$160.69 | \$206.00 |
| Variance | \$418.62 | \$506.08 |

Source: Compiled from Metro Investment Pool documents

Note the Metro Nashville Operating Budget for Fiscal Year 2013 states interest earnings will be adjusted to cover costs of the Treasurer's investment program; as stated previously, many cash management related expenses were included in these adjustments, such as operational bank account fees, which account holders would not commonly perceive as an investment related expense.

Other differences that distinguish the Metro Investment Pool from other local government investment pools include:

- Negative accounts were included in the investment pool. A survey of other investment pools, including the five largest cities in Tennessee, found no other instances of negative account balance funds being comingled in an investment pool. Budgetary line items are provided by Metro for traditionally negative balance funds to pay imputed interest to other Metro government departments and investment pool participants, a circular activity.
- There was no published stated rate of return for the investment pool and no published expense ratio. The computed expense ratio for the Metro Investment Pool was .19 percent or 19 basis points. This was significantly higher than other investment pools such as the Tennessee pool where the expense ratio was .05 percent or 5 basis points for the same period.

Criteria:

- *Budget Ordinance of the Metropolitan Government of Nashville and Davidson County, Tennessee for Fiscal Year 2013* footnoted statement:

“The Director of Finance shall adjust the interest earnings of each account in the Metro Investment Pool to recover a pro-rata share of the costs of the Treasurer’s investment program.”

- The 2013 edition of the International City/County Management Association’s (ICMA) *Management Policies in Local Government Finance* states the three main functions of the treasury process are:
 - Cash budgeting and forecasting
 - Cash mobilization (receipts in/disbursements out)
 - Cash investment

Risks:

Account holders will be disillusioned with returns much smaller and expenses much higher than similar government investment pools.

Recommendations:

Management of the Department of Finance should:

- 1.a - Determine if the Metro Investment Pool is aptly named or would it be more appropriately referred to as the Metro Nashville’s Pooled Cash Account or similar moniker.
- 1.b - Clearly communicate the purpose of the Metro Investment Pool as a mechanism to maximize investment yields for Metro’s temporarily idle cash so as to fund expenses related to forecasting and mobilization of Metro Nashville’s daily cash requirements.

- 1.c – Determine if after declassifying the Metro Investment Pool as an investment vehicle, Metro Nashville would be better served simply retaining interest income for Treasury cash management operations and not charging interest to negative balance funds (mostly consisting of grants). All funds would have their stated balance available.
2. Alternatively, segregate an investment pool adjusted with only investment related expenses.

B – Fund Allocations

The amounts of interest spread across positive and negative funds was incorrect four out of the twelve months reviewed with both figures incorrect in each of the four months. Using the correct figures is a critical step in the process because this determines the amount allocated to each fund based on the time weighted average of investments for the particular fund. In the calculation for two months (October 2010 and February 2012), the previous month's interest income was mistakenly used, in one month (March 2011) interest income was apparently incorrectly stated, and in the final month (May 2012) not all negative time weighted balances were used to perform the calculation. The figures in question are shown below along with the correct amounts.

Exhibit J – Variances in allocated Interest Charges

| Month/Year | Interest Allocated | Interest Charged | Correct Amount |
|-------------------|---------------------------|-------------------------|-----------------------|
| October 2010 | \$24,328.63 | \$ - | \$41,037.75 |
| October 2010 | | -22,731.65 | -39,440.77 |
| March 2011 | 36,900.99 | | 36,868.22 |
| March 2011 | | -15,493.10 | -15,489.35 |
| February 2012 | 5,957.53 | | 6,230.44 |
| February 2012 | | -10,170.50 | -10,443.41 |
| March 2012 | 8,379.47 | | 7,111.97 |
| March 2012 | | -7,989.82 | -6,722.32 |

Source: Metro Financial MIP Process Reports (reformatted) and Office of Internal Audit Calculations

Criteria:

- Finance Accounting Procedure Manual – Earnings Allocation
- Prudent Business Practices

Risks:

Variances in individual fund allocations could place in doubt the veracity of the overall process.

Recommendation:

Management of the Department of Finance should institute a separate review of the figures and calculations each month by someone independent of the process to ensure they are accurate and complete before they are posted to the individual funds each month.

C – Security Access

Security rights within the SymPro system were not properly implemented. According to Finance Personnel there are four operators with access to SymPro; however, this could not be verified because the system does not allow for user identification. On the login screen the operator only inputs a password. This password is given to all personnel who need access to the system.

Files generated from EnterpriseOne are uploaded into SymPro so that the software can run the necessary calculations on each fund based on the information uploaded. These files are stored on the Finance Department shared file folder (P: drive); however, they have not been limited to personnel based on business needs. These files are critical to the process and any alteration or deletion would greatly impact the completion on the investment pool allocation process.

Criteria:

Control Objectives for Information Technology (COBIT 5) BAI03.05 states that:

“Management should implement control, security and auditability measures during configuration, and during integration of hardware and infrastructural software, to protect resources and ensure availability and data integrity.”

Risks:

- Critical information within the system could be changed without anyone knowing who made those changes and why.
- Critical information upload into SymPro could have been manipulated to benefit certain funds.
- Disgruntle employee could delete files that are critical to the process

Recommendations:

Management of the Department of Finance should:

1. Work with SymPro software to determine if user identification information can be utilized and recorded to create an auditable trail for management’s review.
2. Periodically review folder access security that contains critical files and ensure only personnel with business need to access those files can.

GENERAL AUDIT INFORMATION

Statement of Compliance with GAGAS

This audit was conducted from August 2012 to December 2012 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our observations and conclusions based on our audit objectives.

We believe that the evidence obtained provides a reasonable basis for our observations and conclusions based on our audit objectives.

Scope and Methodology

The audit period focused primarily on the two-year period covering fiscal years 2011 and 2012. The methodology employed throughout this audit was one of objectively reviewing various forms of documentation, conducting interviews, observations, evaluating internal controls, and performing substantive tests of the entity's financial information, policies and procedures, contracts and other relevant data.

Criteria

In conducting this audit, the existing processes were evaluated for compliance with:

- Internal policies set forth by the Department of Finance
- Procedures delineated within the Metro Investment Pool manual
- Policies contained within the State of Tennessee's Local Government Investment Pool manual
- Prudent business practices.

Staff Acknowledgement

Carlos Holt, CPA, CFF, CFE, CIA, CGAP, Project Quality Assurance
Mel Marcella, CPA, CMA, CIA, CISA, CFE, In-Charge Auditor (part I)
Tracy Carter, CFE, In-Charge Auditor (part II)

APPENDIX A. MANAGEMENT RESPONSES

- Management's Responses Starts on Next Page -

METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY



KARL F. DEAN
MAYOR

DIRECTOR OF FINANCE
METROPOLITAN COURTHOUSE
ONE PUBLIC SQUARE, SUITE 106
NASHVILLE, TENNESSEE 37201
(615) 862-6151
(615) 862-6156 FAX

March 26, 2013

Mr. Mark Swann
Director, Office of Internal Audit
1417 Murfreesboro Pike
Nashville, TN 37217

Dear Mr. Swann:

We appreciate the work you and your staff have done on the audit of Metro's Investment Pool. Our responses to the audit recommendations are included in Appendix A.

Please let me know if you need any additional information on this matter.

Sincerely,

A handwritten signature in cursive script, appearing to read "Richard M. Riebeling".

Richard M. Riebeling
Director of Finance

Attachment

Metropolitan Investment Pool Management Response to Audit Recommendations

| Audit Recommendation | Response to Recommendation / Action Plan | Assigned Responsibility | Estimated Completion |
|--|---|-------------------------|----------------------|
| A. Management of the Finance Department should: | | | |
| 1.a Determine if the Metro Investment Pool is aptly named or would it be more appropriately referred to as the Metro Nashville's Pooled Cash Account or similar moniker. | Partially Accept – We agree that there needs to be additional clarification in communications with departments about the cash management aspect of these funds that are invested overnight in the Tennessee Local Government Investment Pool. | Kim McDoniel | May 2013 |
| 1.b Clearly communicate the purpose of the Metro Investment Pool as a mechanism to maximize investment yields for Metro's temporarily idle cash so as to fund expenses related to forecasting and mobilization of Metro Nashville's daily cash requirements. | Accept – The description of the activities funded through MIP earnings will be clarified to include the cash management function. | Kim McDoniel | May 2013 |
| 1.c Determine if after declassifying the Metro Investment Pool as an investment vehicle, Metro Nashville would be better served simply retaining interest income for Treasury cash management operations and not charging interest to negative balance funds (mostly consisting of grants). All funds would have their stated balance available. | Reject – It is the Finance Department's policy for "borrowing funds" to bear the cost of using Metro's cash flow. In addition to grant funds, at times funds that are designed to be self-supporting are charged interest expense. | | |
| 2. Alternatively, segregate an investment pool adjusted with only investment related expenses | N/A – see 1c. above. | | |
| B. Management of the Finance Department should: | | | |
| institute a separate review of the figures and calculations each month by someone independent of the process to ensure they are accurate and complete before they are posted to the individual funds each month. | Accept – Additional review procedures have been implemented to ensure the accuracy of the allocation bases in addition to the accuracy of the total income and the total expenses being allocated. Additionally, there has been a change in staff assignments for this function. | Mike Wall | Implemented |
| C. Management of the Finance Department should: | | | |
| 1. Work with SymPro Software to determine if user identification information can be utilized and recorded to create an auditable trail for management's review. | Accept – The system will be modified to accept multiple passwords and to enable the audit trail feature. | Mike Wall | May 2013 |
| 2. Periodically review folder access security that contains critical files and ensure only personnel with business need to access those files can. | Accept – The folder access has been restricted to staff who directly work on investment income allocations. | Mike Wall | Completed |